

April 22, 2003

Mr. Alex Marion, Director of Engineering
Nuclear Energy Institute
1776 I Street, N.W., Suite 400
Washington, D.C. 20006-3708

SUBJECT: PRESSURIZED-WATER REACTOR (PWR) MATERIALS RELIABILITY
PROJECT INTERIM ALLOY 600 SAFETY ASSESSMENT FOR U.S. PWR
PLANTS (MRP-44), PART 1: ALLOY 82/182 PIPE BUTT WELDS

Dear Mr. Marion:

By letter dated April 27, 2001, the Nuclear Energy Institute (NEI), as the regulatory interface for the Electric Power Research Institute (EPRI) Materials Reliability Project (MRP) submitted the proprietary (TP-1001491, Part 1) and non-proprietary (TP-1001491-NP, Part 1) versions of the EPRI report, "PWR Materials Reliability Project Interim Alloy 600 Safety Assessment for U.S. PWR Plants (MRP-44), Part 1: Alloy 82/182 Pipe Butt Welds," for staff information.

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed this report and transmitted its findings in my letter to you dated June 14, 2001. In addition, the enclosure to the letter contained a discussion of the issues that the final report should address. That discussion and the issues that were identified, still remain the focus of the staff's concerns. The report contained a number of main conclusions many of which the staff accepted pending further information. Of particular note, one of the report's conclusions is, "There is no concern with boric acid corrosion as a result of the relatively low leakage rates from the [primary water stress-corrosion cracking] PWSCC cracks and the high temperatures of the components." Knowledge gained from leakage events subsequent to the submittal of this report has proven that conclusion to be invalid. We expect that the information gained since April 27, 2001, will be considered in a reevaluation of the report's conclusions.

I recognize that after the submittal of this report, industry worked to improve their nondestructive examination capabilities with respect to examining large bore Alloy 82/182 butt welds and both industry and staff resources have been diverted to addressing the safety significant issues resulting from PWR upper head penetration cracking. Reflective of the PWR upper head penetration cracking issues, three NRC Bulletins and an NRC Order were issued by the staff and the MRP, on behalf of the industry, authored numerous reports and participated in many technical meetings on this problem. At this point, however, it is important to finalize report MRP-44, Part 1 to address resolution of the issues related to potential PWSCC of Alloy 82/182 pipe butt welds. This will allow a comprehensive reevaluation of priorities so that available resources can be appropriately allocated.

A. Marion

2

In response to this letter, I would appreciate if you could please identify the schedule for submission of the final report for staff review. If you have any questions regarding this letter, please contact Dr. Richard Barrett of my staff on (301) 415-3298.

Sincerely,

/RA/

Brian W. Sheron, Associate Director
for Project Licensing & Technical Analysis
Office of Nuclear Reactor Regulation

cc: See next page

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